

In the Claims:

Please cancel claims 6, 13, 14 and 15.

Please amend claims 1 and 7 as set forth below in the "Listing of Claims".

LISTING OF CLAIMS

Claim 1 (Currently Amended): A method of etching, ~~by a plasma of an etching gas in a processing vessel, in a capacitively coupled plasma etching system,~~ a lower layer film of an organic material formed on a substrate[[,]] by using an upper layer film of an Si-containing organic material as a mask, wherein said method comprising
supplying a mixed gas containing an NH₃ gas and an O₂ gas is supplied into the into a
processing vessel as the etching gas having a pair of opposed electrodes with a distance between
a first of said electrodes and a wafer disposed on a second of said electrodes that is from 30 to 90
mm,
forming a high-frequency electric field between said pair of opposed electrodes to
generate the plasma;
controlling a CD shift value of etching is controlled by adjusting a flow ratio of the O₂
gas to the NH₃ gas,
the plasma is formed between a pair of opposed electrodes disposed in the processing
vessel, and
causing a residence time represented by V/S takes to take a value from 20 to 60 msec,
where V (m³) represents an effective processing space volume as a product of an area of the substrate and a distance between the electrodes, and S (m³/sec) represents a gas exhaust velocity from the processing vessel.

Claim 2 (Original): The etching method according to claim 1, wherein a pressure in the processing vessel is not less than 2.7 Pa and less than 13.3 Pa.

Claim 3 (Previously Presented): The etching method according to claim 1, wherein a pressure in the processing vessel is not less than 6.7 Pa and less than 13.3 Pa.

Claim 4 (Previously Presented): The etching method according to claim 1, wherein a temperature of a support member supporting the substrate in the processing vessel is from 0 to 20°C.

Claim 5 (Original): The etching method according to claim 1, wherein the substrate has a surface layer to be etched with the lower layer film used as a mask, the surface layer being formed under the lower layer film.

Claim 6 (Canceled)

Claim 7 (Currently Amended): A method of etching, ~~by a plasma of an etching gas in a processing vessel, in a capacitively coupled plasma etching system,~~ a lower layer film of an organic material formed on a substrate[[,]] by using an upper layer film of an Si-containing organic material as a mask, wherein said method comprising:

supplying a mixed gas containing an NH₃ gas and an O₂ gas is supplied into the into a processing vessel as the etching gas having a pair of opposed electrodes with a distance between a first of said electrodes and a wafer disposed on a second of said electrodes that is from 30 to 90 mm,

forming a high-frequency electric field between said pair of opposed electrodes to generate the plasma;

adjusting a flow ratio of the O₂ gas to the NH₃ gas so that said flow ratio is from 0.5 to 20%,

the plasma is formed between a pair of opposed electrodes disposed in the processing vessel, and

causing a residence time represented by V/S takes to take a value from 20 to 60 msec, where V (m³) represents an effective processing space volume as a product of an area of the

substrate and a distance between the electrodes, and S (m^3/sec) represents a gas exhaust velocity from the processing vessel.

Claim 8 (Original): The etching method according to claim 7, wherein the flow ratio of the O_2 gas to the NH_3 gas is from 5 to 10%.

Claim 9 (Original): The etching method according to claim 7, wherein a pressure in the processing vessel is not less than 2.7 Pa and less than 13.3 Pa.

Claim 10 (Previously Presented): The etching method according to claim 7, wherein a pressure in the processing vessel is not less than 6.7 Pa and less than 13.3 Pa.

Claim 11 (Previously Presented): The etching method according to claim 7, wherein a temperature of a support member supporting the substrate in the processing vessel is from 0 to 20°C .

Claim 12 (Original): The etching method according to claim 7, wherein the substrate has a surface layer to be etched with the lower layer film used as a mask, the surface layer being formed under the lower layer film.

Claims 13-15 (Canceled)